

REMARKS

I. Introduction

Applicants thank the Examiner for her efforts in examining this application and acknowledge receipt of the Non-final Office Action dated November 19, 2010.

II. Status of the Claims and Specification

Claims 1-4 and 6-13 are pending in the application. By the present communication, no claims are amended. Applicants respectfully request reconsideration of the present application in view of the reasons that follow.

III. Claim Rejections Under 35 U.S.C. § 103

Claims 1-4 and 6-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either WO 02/14423 to Kuraray Co. (hereinafter “Kuraray”) or JP 2001-26663 to Sanwa Kako KK (hereinafter “Sanwa”), in combination with U.S. Patent No. 5,110,842 to Uejikkoku et al. (hereinafter “Uejikkoku”). Applicants respectfully traverse these grounds for rejection.

Kuraray (US Pub. No. 2004/0092666 A1) discloses a crosslinkable polymer composition containing: (a) a block copolymer comprising two or more polymer blocks A of a vinyl aromatic compound and one or more polymer blocks B of a conjugated diene, the polymer block B being either hydrogenated or unhydrogenated; (b) an olefin copolymer having a density of 0.88 to 0.92 g/cm³ and obtained through copolymerization of ethylene and an α -olefin having 4 to 12 carbon atoms; (c) a softening agent; and (d) an organic peroxide in specific amounts (Kuraray, claim 1).

Kuraray also discloses that an object of the invention is to provide a thermoplastic elastomer composition that simultaneously possesses high moldability, abrasion resistance, scratch resistance, hydrolysis resistance, softness, rubber elasticity, grip, shock absorbance, oil resistance and lightweightness at (Kuraray, ¶ [0009]).

Sanwa discloses a damping resin foam which uses as a base material a mixture of a copolymer of ethylene and α -olefin having 3 to 18 carbon atoms and a tri-block copolymer of polystyrene and vinyl-polyisoprene (Sanwa, claim 1).

Sanwa also discloses that an object of the invention is to provide a damping resin foam that is excellent in weather resistance, water resistance, elongation and flexibility and a manufacturing method thereof (Sanwa, ¶ [0004]).

On the other hand, Uejikkoku discloses an electron-beam cured sheet-type foam comprising a polypropylene type resin (A); a copolymer resin (B) which is made up of ethylene and at least one comonomer selected from the group consisting of acrylic acid, ethylacrylate, maleic acid anhydride and vinylacetate; and a copolymer resin (C) made up of ethylene and an α -olefin containing 4 to 8 carbon atoms in specific amounts and having a toughness at 150°C of 50 kg/cm² % or more (Uejikkoku, claim 1).

Uejikkoku also discloses that an object of the invention is to provide an electron-beam cured sheet-type foam of improved tensile strength and dimensional stability (Uejikkoku, col. 1, lines 66-68). Indeed, Uejikkoku exemplifies the electron-beam cured sheet-type foam comprising the claimed composition and having excellent flexibility, tensile strength especially at high temperature, molding processability and dimensional stability in the working examples (Uejikkoku, TABLE 1B). Nowhere does Uejikkoku suggest that the addition of various ethylene polar monomers results in improved tear strength of the foams, as suggested by the Office on page 2 of the Office Action.

In contrast, the present invention is concerned with a resin composition for a foamed product comprising an ethylene/ α -olefin copolymer (A1), a styrene/butadiene/styrene or a styrene/ethylene/butene/styrene block copolymer (B), and an ethylene/methacrylic acid copolymer (A2) in specific amounts as defined in present claims 1, 2 and 9.

Also, the present invention aims to provide a composition which can provide a foamed product (non-crosslinked or crosslinked foamed product) having low specific gravity and low compression set (CS), excelling in the tensile strength properties and the tear strength properties, as well as in impact resilience and exhibiting a less decrease in hardness at high temperatures; a foamed product therefrom; and a laminate using the foamed product, as described at page 4, lines 9 to 16, of the filed specification.

Moreover, Applicants' data indeed shows unexpected benefits of the claimed compositions. As shown in Table 2, at page 46 of the instant specification, when the physical

properties of the secondary crosslinked foam of Ex. 6 containing an ethylene/methacrylic acid copolymer as recited in present claims 1, 2 and 9 are compared with those of Ex. 3 not containing an ethylene/methacrylic acid copolymer, it is clear that the crosslinked foamed product of Ex. 6 exhibits improved adhesion to a polyurethane synthetic leather sheet than that of Ex. 3. A comparison between compositions which include the ethylene/methacrylic acid copolymer and those not containing the ethylene/methacrylic acid copolymer should be deemed sufficient to prove that the claimed compositions indeed exhibit improved properties. Because the Applicants are not claiming a composition comprising E/EMMA alone, a comparison with such a composition, as suggested by the Office in the rebuttal on pp. 3-4 of the Office Action, appears to be immaterial.

Additionally, when physical properties of the secondary crosslinked foam obtained from the composition comprising 80 parts by weight of ethylene/1-butene copolymer, 20 parts by weight of SEBS and 25 parts by weight of EVA of Ex. 5 are compared with those of the foam obtained from the composition comprising 80 parts by weight of ethylene/1-butene copolymer, 20 parts by weight of SEBS and 10 parts by weight of ethylene/methacrylic acid copolymer of Ex. 6, it is obvious that the tear strength of the crosslinked foamed product of Ex. 6 is far superior to that of Ex. 5, as well as that of Ex. 3 not containing any ethylene/polar monomer copolymer in the composition.

The above unexpected properties, shown in the working examples, are described at page 16, line 23, to page 17, line 3, of the specification as filed. Because Kuraray, Sanwa and Uejikkoku fail to teach such an improvement in both adhesive strength and tear strength, the improvement demonstrated by the claimed compositions is indeed surprising and unexpected.

In summary, none of Kuraray, Sanwa and Uejikkoku disclose a resin composition for a foamed product comprising an ethylene/ α -olefin copolymer (A1), a styrene/butadiene/styrene or a styrene/ethylene/butene/styrene block copolymer (B), and an ethylene/methacrylic acid copolymer (A2), in specific amounts, as defined in present independent claims 1, 2 and 9, or a foamed product comprising the claimed composition. Moreover, Kuraray, Sanwa and Uejikkoku fail to disclose a crosslinked foamed product that is excellent in tear strength properties as well as in adhesive strength as in the present invention.

Because the constituent elements, as well as the objective of the present invention, are quite different from those of the cited references, a person skilled in the art would have no reason and no expectation of success to combine the teachings of either one of Kuraray or Sanwa with those of Uejikkoku to arrive at the presently claimed invention.

Therefore, for at least these reasons, the presently claimed invention is not obvious over either one of Kuraray or Sanwa in combination with Uejikkoku, and Applicants respectfully request the rejection of claims 1-4 and 6-13 be withdrawn.

CONCLUSION

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

May 18, 2011

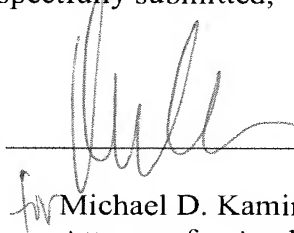
FOLEY & LARDNER LLP

Customer Number: 22428

Telephone: (202) 672-5490

Facsimile: (202) 672-5399

By



for Michael D. Kaminski
Attorney for Applicant
Registration No. 32,904

Ver 55600